

Contents

Preface

Prologue

Volume 1. The Compton Observatory in Review

COMPTON STATUS AND FUTURE

Status and Future of the Compton Gamma Ray Observatory
Neil Gehrels and Chris Shrader

SOLAR AND STELLAR GAMMA RAY ASTRONOMY

Solar and Stellar Gamma Ray Observations with Compton
Gerald H. Share, Ronald J. Murphy, and James Ryan

GALACTIC GAMMA RAY ASTRONOMY

Gamma-Ray Pulsars: the Compton Observatory Contribution to the Study of Isolated Neutron Stars
D. J. Thompson, A. K. Harding, W. Hermsen, and M. P. Ulmer

Recent Results from Observations of Accreting Pulsars
Mark H. Finger and Thomas A. Prince

Low-Mass X-Ray Binaries and Radiopulsars in Binary Systems
Marco Tavani and Didier Barret

GRO J1744-28: the Bursting Pulsar
Chryssa Kouveliotou and Jan van Paradijs

The Soft Gamma-Ray Repeaters
I. A. Smith

Galactic Black Hole Binaries: High Energy Radiation

J. E. Grove, J. E. Grindlay, B. A. Harmon, X.-M. Hua, D. Kazanas, and
M. McConnell

Galactic Black Hole Binaries: Multifrequency Connections

S. N. Zhang, I. F. Mirabel, B. A. Harmon, R. A. Kroeger, L. F. Rodriguez,
R. M. Hjellming, and M. P. Rupen

CGRO Studies of Supernovae and Classical Novae

Mark D. Leising

Supernova Remnants and Plerions in the Compton Gamma-Ray Observatory Era

Ocker C. de Jager and Matthew G. Baring

Diffuse Galactic Continuum Radiation

Stanley D. Hunter, Robert L. Kinzer, and Andy W. Strong

Galactic $e^+ - e^-$ Annihilation Line Radiation

D. M. Smith, W. R. Purcell, and M. Leventhal

Galactic Gamma-Ray Line Emission from Radioactive Isotopes

Roland Diehl and Frank X. Timmes

Galactic Nuclear Deexcitation Gamma-Ray Lines

H. Bloemen and A. M. Bykov

EXTRAGALACTIC GAMMA RAY ASTRONOMY**High Energy Emission from Starburst Galaxies and Clusters**

Yoel Rephaeli and Charles D. Dermer

Seyferts and Radio Galaxies

W. Neil Johnson, Andrzej A. Zdziarski, Greg M. Madejski, William S.
Paciesas, Helmut Steinle, and Ying-Chi Lin

Gamma-Ray Blazars

R. C. Hartman, W. Collmar, C. von Montigny, and C. D. Dermer

Multiwavelength Campaigns

C. R. Shrader and A. E. Wehrle

The Extragalactic Diffuse Gamma-Ray Emission

P. Sreekumar, F. W. Stecker, and S. C. Kappadath

VERY HIGH ENERGY GAMMA RAY ASTRONOMY

VHE and UHE Gamma-ray Astronomy in the EGRET Era

Trevor C. Weekes, Felix Aharonian, David J. Fegan, and Tadashi Kifune

GAMMA RAY MYSTERIES

Pulsar Counterparts of Gamma-Ray Sources

P. A. Caraveo and G. F. Bignami

On the Nature of the Unidentified EGRET Sources

R. Mukherjee, I. A. Grenier, and D. J. Thompson

A Review of Gamma Ray Bursts

Charles Meegan, Kevin Hurley, Alanna Conners, Brenda Dingus, and Steven Matz

Gamma-Ray Line Transients

Michael J. Harris

Constraints from Undetected Gamma-Ray Sources

C. E. Fichtel and P. Sreekumar

HIGH ENERGY PHYSICS AND ASTROPHYSICS

Gamma Ray Implications for the Origin and Acceleration of Cosmic Rays

R. Schlickeiser, M. Pohl, R. Ramaty, and J. G. Skibo

Spectral Signatures and Physics of Black Hole Accretion Disks

Edison Liang and Ramesh Narayan

Comptonization Processes in Galactic and Extragalactic High Energy Sources
Lev G. Titarchuk

Radiation Processes in Blazars
Marek Sikora

COMPTON INSTRUMENTS AND HISTORY

Overview of the Compton Observatory Instruments
J. D. Kurfess, D. L. Bertsch, G. J. Fishman, and V. Schönfelder

The COMPTON Observatory: Reflections on its Origins and History
D. A. Kniffen and N. Gehrels

Participant List of the Fourth Compton Symposium

Volume 2. Papers and Presentations

ISOLATED NEUTRON STARS

COMPTEL gamma-ray study of the Crab nebula

R. D. van der Meulen, H. Bloemen, K. Bennett, W. Hermsen, L. Kuiper,
R. P. Much, J. Ryan, V. Schönfelder, and A. Strong

5 years of Crab Pulsar observations with COMPTEL

R. Much, K. Bennett, C. Winkler, R. Diehl, G. Lichti, V. Schönfelder,
H. Steinle, A. Strong, M. Varendorff, W. Hermsen, L. Kuiper, R. van
der Meulen, A. Connors, M. McConnell, J. Ryan, and R. Buccieri

The Infrared to Gamma-Ray Pulse Shape of the Crab Nebula Pulsar

Stephen S. Eikenberry and Giovanni G. Fazio

Observation of the Crab Pulsar with BeppoSAX: study of the pulse profile and phase resolved spectroscopy

G. Cusumano, D. Dal Fiume, S. Giarrusso, E. Massaro, T. Mineo, L.
Nicastro, A. N. Parmar, and A. Segreto

The Spectrum of TeV Gamma Rays from the Crab Nebula

J. P. Finley, S. Biller, P. J. Boyle, J. H. Buckley, A. Burdett, J. Bussons
Gordo, D. A. Carter-Lewis, M. A. Catanese, M. F. Cawley, D. J. Fegan,
J. A. Gaidos, A. M. Hillas, F. Krennrich, R. C. Lamb, R. W. Lessard, C.
Masterson, J. E. McEnery, G. Mohanty, J. Quinn, A. J. Rodgers, H. J.
Rose, F. W. Samuelson, G. H. Sembroski, R. Srinivasan, T. C. Weekes,
M. West, and A. Zweerink

First Stereoscopic Measurements at the Whipple Observatory

Frank Krennrich, for the Whipple Collaboration

The “COS–B/EGRET 1997” Geminga Ephemeris

J. R. Mattox, J. P. Halpern, and P. A. Caraveo

On the Accurate Positioning of Geminga

P. A. Caraveo, M. G. Lattanzi, G. Massone, R. Mignani, V. V. Makarov,
M. A. C. Perryman, and G. F. Bignami

Studies of the Gamma Ray Pulsar Geminga

S. Zhang, T. P. Li, M. Wu, W. Yu, X. J. Sun, L. M. Song, F. J. Lu

Timing analysis of four years of COMPTEL data on PSR B1509-58

A. Carramiñana, K. Bennett, W. Hermsen, L. Kuiper, V. Schönfelder,
A. Connors, V. Kaspi, M. Bailes, and R. N. Manchester

Search for the pulse of PSR B1823-13 in the COMPTEL and EGRET databases

A. Carramiñana, K. T. S. Brazier, K. Bennett, W. Hermsen, L. Kuiper,
V. Schönfelder, and A. Lyne

Very High Energy Observations of PSR B1951+32

R. Srinivasan, P. J. Boyle, J. H. Buckley, A. M. Burdett, J. Gordo, D.
A. Carter-Lewis, M. Catanese, M. F. Cawley, E. Colombo, D. J. Fegan,
J. P. Finley, J. A. Gaidos, A. M. Hillas, R. C. Lamb, F. Krennrich, R.
W. Lessard, C. Masterson, J. E. McEnery, G. Mohanty, P. Moriarty, J.
Quinn, A. J. Rodgers, H. J. Rose, F. W. Samuelson, G. H. Sembroski,
T. C. Weekes, and J. Zweerink

A Candidate γ -Ray Pulsar in CTA 1

K. T. S. Brazier, O. Reimer, G. Kanbach, and A. Carramiñana

Discovery of the Young, Energetic Radio Pulsar PSR J1105-6107

V. M. Kaspi, M. Bailes, R. N. Manchester, B. W. Stappers, J. S. Sandhu,
J. Navarro, and N. D'Amico

RXTE Observation of PSR 1706-44

A. Ray, A. K. Harding, and M. Strickman

VHE Gamma Rays from PSR B1706-44

P. M. Chadwick, M. R. Dickinson, N. A. Dipper, J. Holder, T. R. Kendall, T. J. L. McComb, K. J. Orford, J. L. Osborne, S. M. Rayner, I. D. Roberts, S. E. Shaw, and K. E. Turver

RXTE Observations of the anomalous pulsar 4U0142+61
Stefan Dieters, Colleen Wilson, Mark Finger, Matt Scott, and Jan van Paradijs

Search for a Gamma-ray Pulsar in the SNR RCW103
Masaki Mori and Ken Ebisawa

Search for X-ray Pulsation from Rotation-Powered Pulsars with ASCA
Y. Saito, N. Kawai, T. Kamae, and S. Shibata

Gamma Ray Pulsar Luminosities
M. A. McLaughlin, J. M. Cordes, and M. P. Ulmer

A New Class of Radio Quiet Pulsars
Matthew G. Baring and Alice K. Harding

The pulse profile of γ -ray pulsars and the emission region geometry
E. Massaro and M. Litterio

Geometry of Pulsar X-Ray and Gamma-Ray Pulse Profiles
Alice K. Harding and Alex Muslimov

A New Method for Statistical Study of Gamma-Ray Phase Curves of Radio Pulsars
Anton Chernenko

Evidence for spontaneous magnetic field decay in an isolated neutron star
John C. L. Wang

NEUTRON STAR BINARIES

A Multi-Year Light Curve of Sco X-1 Based on BATSE SD Data and the Variability States of Sco X-1

B. J. McNamara, T. E. Harrison, P. A. Mason, M. Templeton, C. W. Heikkila, T. Buckley, E. Galvan, and A. Silva

Comparison of the BATSE LAD and SD Light Curves of Sco X-1: 1991 – 1996

T. E. Harrison, B. J. McNamara, P. A. Mason, and M. Templeton

Application of the Gabor Transform to BATSE Spectroscopy Detector Observations of Scorpius X-1

P. A. Mason, M. Templeton, B. J. McNamara, T. E. Harrison, E. Galvan, and T. Buckley

High-Energy Transient Events From Scorpius X-1 and Cygnus X-1

Paul A. Mason, Bernard J. McNamara, and Thomas E. Harrison

Low-energy line emission from Cygnus X-2 observed by the BeppoSAX LECS

Erik Kuulkers, Arvind N. Parmar, Alan Owens, Tim Oosterbroek, and Uwe Lammers

BATSE Observations of the Second Outburst of GRO J1744-28

Peter Woods, Chryssa Kouveliotou, Jan van Paradijs, Michael S. Briggs, Kim Deal, C. A. Wilson, B. A. Harmon, G. J. Fishman, W. H. G. Lewin, and J. Kommers

Determination of Peak Fluxes and α for Bursts from GRO J1744-28

Tod E. Strohmayer, Keith Jahoda, Jean H. Swank, and Michael J. Stark

Kilohertz Oscillations in 4U 0614+091 and Other LMXBs

E. C. Ford, P. Kaaret, M. Tavani, D. Barret, P. Bloser, J. Grindlay, B. A. Harmon, W. S. Paciesas, and S. N. Zhang

General Relativity and Quasi-Periodic Oscillations

Philip Kaaret and Eric C. Ford

Compact Hard X-ray Sources near Galactic Longitude 20

Gregory V. Jung, J. D. Kurfess, and W. R. Purcell

Hard and Soft X-ray Observations of Aquila X-1

Brad C. Rubin, B. A. Harmon, W. S. Paciesas, C. R. Robinson, and S. N. Zhang

Observation of X-Ray Bursters with the Beppo-SAX Wide Field Cameras

A. Bazzano, M. Cocchi, L. Natalucci, P. Ubertini J. Heise, J. in 't Zand, J. M. Muller, and M. J. S. Smith

Aperiodic variability of the X-ray burster 1E1724-3045: First results from RXTE/PCA

J.-F. Olive, D. Barret, L. Boirin, J. Grindlay, P. Bloser, J. Swank, and A. Smale

New X-Ray Bursters with the WFCs on board SAX: SAX J1750. 8-2900, GS 1826-24 and SLX 1735-269

A. Bazzano, M. Cocchi, L. Natalucci, P. Ubertini J. Heise, J. in 't Zand, J. M. Muller, and M. J. S. Smith

Kilo-Hertz QPO and X-ray Bursts in 4U 1608-52 in Low Intensity State

W. Yu, S. N. Zhang, B. A. Harmon, W. S. Paciesas, C. R. Robinson, J. E. Grindlay, P. Bloser, D. Barret, E. C. Ford, M. Tavani, and P. Kaaret

Long-term Observations of Her X-1 with BATSE

Robert B. Wilson, D. Matt Scott, and Mark H. Finger

RXTE Spectroscopy of Her X-1

D. E. Gruber, W. A. Heindl, R. E. Rothschild, R. Staubert, M. Kunz, and D. M. Scott

Observations of Pulse Evolution in Her X-1

D. Matthew Scott, Robert B. Wilson, Mark H. Finger, and Denis A. Leahy

Evolution of the Orbital Period of Her X-1: Determination of a new Ephemeris using RXTE Data

B. Stelzer, R. Staubert, J. Wilms, R. D. Geckler, D. Gruber, and R. Rothschild

The pulsed light curves of Her X-1 as observed by BeppoSAX

D. Dal Fiume, M. Orlandini, G. Cusumano, S. Del Sordo, M. Feroci, F. Frontera, T. Oosterbroek, E. Palazzi, A. N. Parmar, A. Santangelo, and A. Segreto

The 35 day cycle of Her X-1 and the coronal wind model

S. Schandl, R. Staubert, and M. König

CGRO/EGRET Observations of Centaurus X-3

W. Thomas Vestrand, P. Sreekumar, and Masaki Mori

GRO J2058+42 X-Ray Observations

Colleen A. Wilson, M. H. Finger, B. A. Harmon, R. B. Wilson, D. Chakrabarty, and T. Strohmayer

Observation of a Long Term Spin-up Trend in 4U1538-52

Brad C. Rubin, M. H. Finger, D. M. Scott, and R. B. Wilson

EGRET Observations of X-Ray Binaries

B. B. Jones, Y. C. Lin, P. F. Michelson, P. L. Nolan, M. S. E. Roberts, and W. F. Tompkins

Observations of Vela X-1 with RXTE

P. Kretschmar, I. Kreykenbohm, R. Staubert, J. Wilms, M. Maisack, E. Kendziorra, W. Heindl, D. Gruber, R. Rothschild, and J. E. Grove

BeppoSAX observation of the X-ray binary pulsar Vela X-1

M. Orlandini, D. Dal Fiume, L. Nicastro, S. Giarrusso, A. Segreto, S. Piraino, G. Cusumano, S. Del Sordo, M. Guainazzi, and L. Piro

New radio observations of Circinus X-1

R. P. Fender

Orbit Determination for the Be/X-Ray Transient EXO 2030+375

Mark T. Stollberg, Mark H. Finger, Robert B. Wilson, D. Matthew Scott, David J. Crary, and William S. Paciesas

The Orbital Ephemeris and X-Ray Light Curve of Cyg X-3

Steven M. Matz

A Multiwavelength Study of Cygnus X-3

M. L. McCollough, C. R. Robinson, S. N. Zhang, B. A. Harmon, W. S. Paciesas, R. M. Hjellming, M. Rupen, A. J. Mioduszewski, E. B. Waltman, R. S. Foster, F. D. Ghigo, G. G. Pooley, R. P. Fender, and W. Cui

Is There Any Evidence for a Massive Black Hole in Cyg X-3

Abhas Mitra

Generation of periodical gamma radiation in binary system with a millisecond pulsar

M. A. Chernyakova and A. F. Illarionov

GALACTIC BLACK HOLE CANDIDATES

The MeV Spectrum of Cygnus X-1 as Observed with COMPTEL

M. McConnell, K. Bennett, H. Bloemen, W. Collmar, W. Hermsen, L. Kuiper, R. Much, J. Ryan, V. Schönfelder, H. Steinle, A. Strong, and R. van Dijk

Five Years in the Life of Cygnus X-1: BATSE Long-Term Monitoring

W. S. Paciesas, C. R. Robinson, M. L. McCollough, S. N. Zhang, B. A. Harmon, and C. A. Wilson

Spectral Evolution of Cyg X-1 During Its 1996 Soft State Tran-

sition

S. N. Zhang, Wei Cui, B. A. Harmon, and W. S. Paciesas

X-ray and γ -ray spectra of Cyg X-1 in the soft state

Marek Gierliński, Andrzej A. Zdziarski, Tadayasu Dotani, Ken Ebisawa, Keith Jahoda, and W. Neil Johnson

RXTE Observation of Cygnus X-1: Spectra and Timing

J. Wilms, J. Dove, M. Nowak, and B. A. Vaughan

Spectral Variability of Cygnus X-1 in the Soft State

Warren Focke, Jean Swank, Bernard Phlips, William Heindl, and Wei Cui

Modeling Cygnus X-1 γ_2 Spectra Observed by BATSE

Xin-Min Hua, James C. Ling, and Wm. A. Wheaton

A model for the high-energy emission of Cyg X-1

Igor V. Moskalenko, Werner Collmar, and Volker Schönfelder

A Thermal-Nonthermal Inverse Compton Model for Cyg X-1

A. Crider, E. P. Liang, I. A. Smith D. Lin, and M. Kusunose

Two Distinct States of Microquasars 1E1740-294 and GRS1758-258

S. N. Zhang, B. A. Harmon, and E. P. Liang

Broad-Band Spectral Modeling of Cyg X-1 and 1E1740. 7

S. Sheth, E. Liang, M. Burger, C. Luo A. Harmon, and S. N. Zhang

Observational constraints on annihilation sites in 1E 1740. 7-2942 and Nova Muscae

Igor V. Moskalenko and Elisabeth Jourdain

Two-phase spectral modelling of 1E1740.7-2942

Osmi Vilhu, Jukka Nevalainen, Juri Poutanen, Marat Gilfanov, Philippe Durouchoux, Marielle Vargas, Ramesh Narayan, and Ann Esin

Multi-Wavelength Monitoring of GRS 1915+105

R. Bandyopadhyay, P. Martini, E. Gerard, P. A. Charles, R. M. Wagner,
C. Shrader, T. Shahbaz, and I. F. Mirabel

The Hard X-Ray Spectrum of GRS 1915+105

W. A. Heindl, P. Blanco, D. E. Gruber, M. Pelling, R. Rothschild, E.
Morgan, and J. H. Swank

OSSE Upper Limit on Positron Annihilation from GRS 1915+105

D. M. Smith, M. Leventhal, L. X. Cheng, J. Tueller, N. Gehrels, I. F.
Mirabel, L. F. Rodriguez, and W. Purcell

RXTE Observations of GRS 1915+105

J. Greiner, E. H. Morgan, and R. A. Remillard

Near-Infrared Observations of GRS 1915+105

William A. Mahoney, Stephane Corbel, Ph. Durouchoux, Thomas N.
Gautier, J. C. Higdon, and Pierre Wallyn

Infrared Observations and Energetic Outburst of GRS 1915+105

Sylvain Chaty and I. Felix Mirabel

ASCA Observations of Galactic Jet Systems

T. Kotani, N. Kawai, M. Matsuoka, T. Dotani, H. Inoue, F. Nagase,
Y. Tanaka, Y. Ueda, K. Yamaoka, W. Brinkmann, K. Ebisawa, T.
Takeshima, N. E. White, A. Harmon, C. R. Robinson, S. N. Zhang,
M. Tavani, and R. Foster

BATSE Observations of GX339-4

Brad C. Rubin, B. A. Harmon, W. S. Paciesas, C. R. Robinson, S. N.
Zhang, and G. J. Fishman

Multiwavelength Observations of GX 339-4

I. A. Smith, E. P. Liang, M. Moss, J. Dobrinskaya, R. P. Fender, Ph.
Durouchoux, S. Corbel, R. Sood, A. V. Filippenko, and D. C. Leonard

Radio Observations of the Black Hole Candidate GX 339-4

S. Corbel, R. P. Fender, P. Durouchoux, R. K. Sood, A. K. Tzioumis,

R. E. Spencer, and D. Campbell-Wilson

Infrared Observations of the Ellipsoidal Light Variation in J0422+32

Dawn M. Leeber, Thomas E. Harrison, and Bernard J. McNamara

Rapid X-ray variability in GRO J0422+32 (Nova Per 1992)

F. van der Hooft, C. Kouveliotou, J. van Paradijs, D. J. Crary, B. C. Rubin, M. H. Finger, B. A. Harmon, M. van der Klis, W. H. G. Lewin, and G. J. Fishman

BATSE Observations of Two Hard X-ray Outbursts from 4U 1630-47

P. F. Bloser, J. E. Grindlay, D. Barret, S. N. Zhang, B. A. Harmon, G. J. Fishman, and W. S. Paciesas

Hard X-ray observations of GRS 1009-45 with the SIGMA telescope

P. Goldoni, M. Vargas, A. Goldwurm, P. Laurent, E. Jourdain, J.-P. Roques, V. Borrel, L. Bouchet, M. Revnivtsev, E. Churazov, M. Gilfanov, and R. Sunyaev

Relativistic effects in the X-ray spectra of the Black Hole Candidate GS 2023+338

P. T. Zycki, C. Done, and D. A. Smith

A search for gamma-ray flares from black-hole candidates on time scales of ~ 1.5 hours

R. van Dijk, K. Bennett, H. Bloemen, R. Diehl, W. Hermsen, M. McConnell, J. Ryan, and V. Schönfelder

Physical Characteristics of the Spectral States of Galactic Black Holes

Juri Poutanen, Julian H. Krolik, and Felix Ryde

Temporal Characteristics of Compton Reflection from Accretion Disks

W. T. Bridgman, C. D. Dermer, and J. G. Skibo

Temporal and Spectral Properties of Comptonized Radiation
Demosthenes Kazanas, Xin-Min Hua, and Lev Titarchuk

Phase Difference and Coherence as Diagnostics of Accreting Sources

Xin-Min Hua, Demosthenes Kazanas, and Lev Titarchuk

Global Spectra of Transonic Accretion Disks

E. Liang and C. Luo

Horizontal Branch Oscillations from Black Hole Candidates

Xingming Chen, Ronald E. Taam, and Jean H. Swank

Evolution of the Optically Thick Disk in Nova Muscae

Fulvio Melia and Ranjeev Misra

GALACTIC GAMMA-RAY LINE EMISSION

TGRS Results on the Spatial and Temporal Behavior of the Galactic Center 511 keV Line

B. J. Teegarden, T. L. Cline, N. Gehrels, R. Ramaty, H. Seifert, M. Harris, D. Palmer, and K. H. Hurley

A BATSE Measurement of the Galactic Positron Annihilation Line

D. M. Smith, L. X. Cheng, M. Leventhal, J. Tueller, N. Gehrels, and G. Fishman

OSSE Constraints on the Galactic Positron Source Distribution

Peter A. Milne and Mark D. Leising

Is Positron Escape Seen In the Late-time Light Curves of Type Ia Supernovae?

Peter A. Milne, Lih-Sin The, and Mark D. Leising

The Origin of the High-Energy Activity at the Galactic Center
Farhad Yusef-Zadeh, William Purcell, and Eric Gotthelf

The Galactic Center Lobe and its interpretation

M. Pohl

Evidence for GeV emission from the Galactic Center Fountain

D. H. Hartmann, D. D. Dixon, E. D. Kolaczyk, J. Samimi

Positron Transport and Annihilation in Expanding Flows: A Model for the High-Latitude Annihilation Feature

Charles D. Dermer and Jeffrey G. Skibo

Issues Concerning the Orion Gamma Ray Line Observations: Overview and X-Ray Emission

R. Ramaty, B. Kozlovsky, and V. Tatischeff

Constraints from Pion Production on the Spectral Hardness of the Low Energy Cosmic Rays in Orion

Vincent Tatischeff, Reuven Ramaty, and Natalie Mandzhavidze

Gamma-Ray Lines from OB Associations at $Z = Z_{\odot}$ and $Z = 2Z_{\odot}$

E. Parizot, J. Paul, and M. Cassé

On the Origin of the Orion Energetic Particles

Etienne M. G. Parizot

On the Origin of 3 to 7 MeV γ -Ray Excess in the Direction of Orion

V. A. Dogiel, M. J. Freyberg, G. E. Morfill, and V. Schönfelder

COMPTEL Spectral Study of the Inner Galaxy

H. Bloemen, A. M. Bykov, R. Diehl, W. Hermsen, R. van der Meulen, V. Schönfelder, and A. W. Strong

OSSE Results on Galactic γ -Ray Line Emission

M. J. Harris, W. R. Purcell, K. McNaron-Brown, R. J. Murphy, J. E. Grove, W. N. Johnson, R. L. Kinzer, J. D. Kurfess, G. H. Share, and G. V. Jung

Reassessment of the ^{56}Co emission from SN 1991T

D. J. Morris, K. Bennett, H. Bloemen, R. Diehl, W. Hermsen, G. G. Lichti, M. L. McConnell, J. M. Ryan, and V. Schönfelder

RXTE Observations of Cas A

R. E. Rothschild, R. E. Lingenfelter, W. A. Heindl, P. R. Blanco, M. R. Pelling, D. E. Gruber, G. E. Allen, K. Jahoda, J. H. Swank, S. E. Woosley, K. Nomoto, and J. C. Higdon

Fluctuation Analysis of OSSE Measurements of the 1.275 MeV Line of ^{22}Na

Michael J. Harris

COMPTEL All-Sky Imaging at 2. 2 MeV

M. McConnell, S. Fletcher, K. Bennett, H. Bloemen, R. Diehl, W. Hermsen, J. Ryan, V. Schönfelder, A. Strong, and R. van Dijk

^{26}Al Constraints from the COMPTEL/OSSE/SMM Data

R. Diehl, M. D. Leising, J. Knöldlseder, and U. Oberlack

^{26}Al and the COMPTEL ^{60}Fe Data

R. Diehl, U. Wessolowski, U. Oberlack, H. Bloemen, R. Georgii, A. Iyudin, J. Knöldlseder, G. Lichti, W. Hermsen, D. Morris, J. Ryan, V. Schönfelder, A. Strong, P. von Ballmoos, and C. Winkler

Models for COMPTEL ^{26}Al Data

R. Diehl, U. Oberlack, J. Knöldlseder, H. Bloemen, W. Hermsen, D. Morris, J. Ryan, V. Schönfelder, A. Strong, P. von Ballmoos, and C. Winkler

γ -Ray Emitting Radionuclide Production in A Multidimensional Supernovae Model

Grant Bazán and David Arnett

Predictions of gamma-ray emission from classical novae and their detectability by CGRO

M. Hernanz, J. Gómez-Gomar, J. José, and J. Isern

New Studies of Nuclear Decay γ -rays From Novae

S. Starrfield, J. W. Truran, M. C. Wiescher, and W. M. Sparks

**SUPERNOVA REMNANTS AND COSMIC RAYS,
DIFFUSE GAMMA-RAY CONTINUUM RADIATION,
AND UNIDENTIFIED SOURCES**

CTA 1 Supernova Remnant: A High Energy Gamma-Ray Source?

D. Bhattacharya, A. Akyüz, G. Case, D. Dixon, and A. Zych

Constraints on Cosmic-Ray Origin from TeV Gamma-Ray Observations of Supernova Remnants

R. W. Lessard, P. J. Boyle, S. M. Bradbury, J. H. Buckley, A. C. Burdett, J. Bussóns Gordo, D. A. Carter-Lewis, M. Catanese, M. F. Cawley, D. J. Fegan, J. P. Finley, J. A. Gaidos, A. M. Hillas, F. Krennrich, R. C. Lamb, C. Masterson, J. E. McEnery, G. Mohanty, J. Quinn, A. J. Rodgers, H. J. Rose, F. W. Samuelson, G. H. Semborski, R. Srinivasan, T. C. Weekes, and J. Zweerink

Hard X-ray Emission from Cassiopeia A SNR

Lih-Sin The, Mark D. Leising, Dieter H. Hartmann, James D. Kurfess, Philip Blanco, and Dipen Bhattacharya

Nonthermal SNR Emission

Steven J. Sturner, Jeffrey G. Skibo, Charles D. Dermer, and John R. Mattox

Gamma-Rays from Supernova Remnants: Signatures of Non-Linear Shock Acceleration

Matthew G. Baring, Donald C. Ellison, Stephen J. Reynolds, and Isabelle A. Grenier

Modelling cosmic rays and gamma rays in the Galaxy

Andrew W. Strong and Igor V. Moskalenko

Production of Beryllium and Boron by Spallation in Supernova Ejecta

Deepa Majmudar and James H. Applegate

**Gamma Rays and Cosmic Rays from Supernova Explosions
and Young Pulsars in the Past**

Lev I. Dorman

**Angle Distribution and Time Variation of Gamma Ray Flux
from Solar and Stellar Winds, 1. Generation of Flare Energetic
Particles**

Lev I. Dorman

**Angle Distribution and Time Variation of Gamma Ray Flux
from Solar and Stellar Winds, 2. Generation of Galactic Cos-
mic Rays**

Lev I. Dorman

Diffuse High-Energy Gamma-Ray Emission in Monoceros

S. W. Digel, I. A. Grenier, S. D. Hunter, T. M. Dame, and P. Thaddeus

**Diffuse 50 keV to 10 MeV Gamma-ray Emission from the Inner
Galactic Ridge**

R. L. Kinzer, W. R. Purcell, and J. D. Kurfess

**Diffuse Galactic Continuum Emission: Recent Studies using
COMPTEL Data**

A. W. Strong, R. Diehl, V. Schönfelder, K. Bennett , M. McConnell,
and J. Ryan

**Galactic Diffuse γ -ray Emission at TeV Energies and the Ultra-
High Energy Cosmic Rays**

G. A. Medina Tanco and E. M. de Gouveia Dal Pino

**The Diffuse Galactic Continuum Observed with EGRET: Where's
the Bump?**

Jeff Skibo

The pulsar contribution to the diffuse galactic γ -ray emission

M. Pohl, G. Kanbach, S. D. Hunter, and B. B. Jones

The Total Cosmic Diffuse Gamma-Ray Spectrum from 9 to 30 MeV Measured with COMPTEL

S. C. Kappadath, J. Ryan, K. Bennett, H. Bloemen, R. Diehl, W. Hermsen, M. McConnell, V. Schönfelder, M. Varendorff, G. Weidenspointner, and C. Winkler

The Cosmic γ -Ray Background from Supernovae

K. Watanabe, D. H. Hartmann, M. D. Leising, L.-S. The, G. H. Share, and R. L. Kinzer

The γ -Ray and Neutrino Background and Cosmic Chemical Evolution

D. H. Hartmann, K. Watanabe, M. D. Leising, L.-S. The, and S. E. Woosley

The contribution of blazars to the extragalactic diffuse γ -ray background

A. Mücke and M. Pohl

Absorption of High Energy Gamma Rays by Interactions with Extragalactic Starlight Photons at High Redshifts

M. H. Salamon and F. W. Stecker

Further COMPTEL observations of the region around GRO J1753+57: are there several MeV sources present?

O. R. Williams, K. Bennett, R. Much, V. Schönfelder, W. Collmar, H. Bloemen, J. J. Blom, W. Hermsen, and J. Ryan

Temporal and Spectral Studies of Unidentified EGRET High Latitude Sources

O. Reimer, D. L. Bertsch, B. L. Dingus, J. A. Esposito, R. C. Hartman, S. D. Hunter, B. B. Jones, G. Kanbach, D. A. Kniffen, Y. C. Lin, H. A. Mayer-Hasselwander, C. v. Montigny, P. L. Nolan, P. Sreekumar, D. J. Thompson, and W. F. Tompkins

Discovery of a non-blazar gamma-ray transient in the Galactic plane

M. Tavani, R. Mukherjee, J. R. Mattox, J. Halpern, D. J. Thompson,
G. Kanbach, W. Hermsen, S. N. Zhang, and R. S. Foster

**Searches for short-term variability of EGRET sources in the
Galactic anticenter**

D. J. Thompson, S. D. Bloom, J. A. Esposito, D. A. Kniffen, and C.
von Montigny

**Short Time-scale Gamma-Ray Variability of Blazars and EGRET
Unidentified Sources**

S. D. Bloom, D. J. Thompson, R. C. Hartman, and C. von Montigny

Optical identification of EGRET source counterparts

A. Carramiñana, J. Guichard, K. T. S. Brazier, G. Kanbach, and O.
Reimer

**Possible Identification of Unidentified EGRET Sources with
Wolf-Rayet Stars**

R. K. Kaul and A. K. Mitra

**Isolated Accreting Black Holes and the Unidentified EGRET
Sources**

Charles D. Dermer

SEYFERT AND RADIO GALAXIES

Multi-Year BATSE Earth Occultation Monitoring of NGC4151

A. Parsons, N. Gehrels, W. Paciesas, A. Harmon, G. Fishman, C. Wilson,
and S. N. Zhang

Broad-band continuum and variability of NGC 5548

Paweł Magdziarz, Omer Blaes, Andrzej A. Zdziarski, W. Neil Johnson,
and David A. Smith

**Detection of a High Energy Break in the Seyfert Galaxy MCG+8-
11-11**

P. Grandi, F. Haardt, G. Ghisellini, J. E. Grove, L. Maraschi, and C.

M. Urry

Compton Gamma-Ray Observatory Observations of the Nearest Active Galaxy Centaurus A

H. Steinle, K. Bennett, H. Bloemen, W. Collmar, R. Diehl, W. Hermsen, G. G. Lichti, D. Morris, V. Schönfelder, A. W. Strong, and O. R. Williams

An Anisotropic Illumination Model of Seyfert I Galaxies

P. O. Petrucci, G. Henri, J. Malzac, and E. Jourdain

Scattered Emission and the X- γ Spectra of Seyfert Galaxies

J. Chiang, C. D. Dermer, and J. G. Skibo

Pair models revivified for high energy emission of AGNs

Gilles Henri and Pierre-Olivier Petrucci

Big Blue Bump And Transient Active Regions in Seyfert Galaxies

Sergei Nayakshin and Fulvio Melia

Magnetic Flares and the Observed $\tau_T \sim 1$ in Seyfert Galaxies

Sergei Nayakshin and Fulvio Melia

Physical Constraints for The Active Regions in Seyfert Galaxies

Sergei Nayakshin and Fulvio Melia

Are Gamma-ray Bursts related to Active Galactic Nuclei?

Javier Gorosabel and Alberto J. Castro-Tirado

BLAZARS

Evidence for γ -Ray Flares in 3C 279 and PKS 1622-297 at ~ 10 MeV

W. Collmar, V. Schönfelder, H. Bloemen, J. J. Blom, W. Hermsen, M. McConnell, J. G. Stacy, K. Bennett, and O. R. Williams

EGRET Observations of PKS 0528+134 from 1991 to 1997

R. Mukherjee, D. L. Bertsch, S. D. Bloom, B. L. Dingus, J. A. Esposito, R. C. Hartman, S. D. Hunter, G. Kanbach, D. A. Kniffen, A. Kraus, T. P. Krichbaum, Y. C. Lin, W. A. Mahoney, A. P. Marscher, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, A. Mücke, P. L. Nolan, M. Pohl, O. Reimer, E. Schneid, P. Sreekumar, H. Teräsranta, D. J. Thompson, M. Tornikoski, E. Valtaoja, S. Wagner, and A. Witzel

Imaging Analysis of PKS0528+134 During Its Flare with A Direct Demodulation Technique

S. Zhang, T. P. Li, M. Wu, and W. Yu

First Results of an All-sky Search for MeV-emission from Active Galaxies with COMPTEL

J. G. Stacy, J. M. Ryan, W. Collmar, V. Schönfelder, H. Steinle, A. W. Strong, H. Bloemen, J. J. Blom, W. Hermsen, O. R. Williams, and M. Maisack

Variability time scales in the gamma-ray blazars using structure function analysis

Giridhar Nandikotkur, P. Sreekumar, and D. A. Carter-Lewis

A spectral study of gamma-ray emitting AGN

M. Pohl, R. C. Hartman, P. Sreekumar, and B. B. Jones

EGRET Observations of PKS 2005–489

Y. C. Lin, D. L. Bertsch, S. D. Bloom, B. L. Dingus, J. A. Esposito, S. D. Hunter, B. B. Jones, G. Kanbach, D. A. Kniffen, H. A. Mayer-Hasselwander, P. F. Michelson, C. von Montigny, R. Mukherjee, A. Mücke, P. L. Nolan, M. K. Pohl, O. L. Reimer, E. J. Schneid, P. Sreekumar, D. J. Thompson, and W. F. Tompkins

Whipple Observations of BL Lac Objects at $E > 300$ GeV

M. Catanese, P. J. Boyle, J. H. Buckley, A. M. Burdett, J. Bussóns Gordo, D. A. Carter-Lewis, M. F. Cawley, D. J. Fegan, J. P. Finley, J. A. Gaidos, A. M. Hillas, F. Krennrich, R. C. Lamb, R. W. Lessard, C. Masterson, J. E. McEnery, G. Mohanty, J. Quinn, A. J. Rodgers, H. J.

Rose, F. W. Samuelson, G. H. Sembroski, R. Srinivasan, T. C. Weekes, and J. Zweerink

Multiwavelength Observations of Markarian 421

J. H. Buckley, P. Boyle, A. Burdett, J. Bussóns Gordo, D. A. Carter-Lewis, M. Catanese, M. F. Cawley, D. J. Fegan, J. P. Finley, J. A. Gaidos, A. M. Hillas, F. Krennrich, R. C. Lamb, R. W. Lessard, C. Masterson, J. McEnery, G. Mohanty, J. Quinn, A. Rodgers, H. J. Rose, F. Samuelson, G. H. Sembroski, R. Srinivasan, T. C. Weekes, and J. Zweerink

Observation of Strong Variability in the X-Ray Emission from Markarian 421 Correlated with the May 1996 TeV Flare

Michael Schubnell

The Energy Spectrum of Mrk 421

Frank Krennrich, for the Whipple Collaboration

Study of the Temporal and Spectral Characteristics of TeV Gamma Radiation from Mkn 501 During a State of High Activity by the HEGRA IACT Array

F. Aharonian, A. Akhperjanian, J. Barrio, K. Bernlöhr, J. Beteta, S. Bradbury, J. Contreras, J. Cortina, A. Daum, T. Deckers, E. Feigl, J. Fernandez, V. Fonseca, A. Fraß, B. Funk, J. Gonzalez, V. Haustein, G. Heinzelmann, M. Hemberger, G. Hermann, M. Heß, A. Heusler, W. Hofmann, I. Holl, D. Horns, R. Kankanian, O. Kirstein, C. Köhler, A. Konopelko, H. Kornmayer, D. Kranich, H. Krawczynski, H. Lampeitl, A. Lindner, E. Lorenz, N. Magnussen, H. Meyer, R. Mirzoyan, H. Möller, A. Moralejo, L. Padilla, M. Panter, D. Petry, R. Plaga, J. Prahl, C. Prosch, G. Pühlhofer, G. Rauterberg, W. Rhode, R. Rivero, A. Röhring, V. Sahakian, M. Samorski, J. Sanchez, D. Schmele, T. Schmidt, W. Stamm, M. Ulrich, H. Völk, S. Westerhoff, B. Wiebel-Sooth, C. A. Wiedner, M. Willmer, and H. Wirth (HEGRA collaboration)

Multiwavelength Observations of a Flare from Markarian 501

M. Catanese, S. M. Bradbury, A. C. Breslin, J. H. Buckley, D. A. Carter-

Lewis, M. F. Cawley, C. D. Dermer, D. J. Fegan, J. P. Finley, J. A. Gaidos, A. M. Hillas, W. N. Johnson, F. Krennrich, R. C. Lamb, R. W. Lessard, D. J. Macomb, J. E. McEnery, P. Moriarty, J. Quinn, A. J. Rodgers, H. J. Rose, F. W. Samuelson, G. H. Sembroski, R. Srinivasan, T. C. Weekes, and J. Zweerink

**Recent Observations of γ -rays above 1. 5 TeV from Mkn 501
with the HEGRA 5 m Air Čerenkov Telescope**

D. Kranich, E. Lorenz, and D. Petry for the HEGRA Collaboration

BeppoSAX Monitoring of the BL Lac Mkn 501

E. Pian, G. Vacanti, G. Tagliaferri, G. Ghisellini, L. Maraschi, A. Treves, C. M. Urry, F. Fiore, P. Giommi, E. Palazzi, L. Chiappetti, and R. M. Sambruna

Multiwavelength Observations of the February 1996 High-Energy Flare in the Blazar 3C 279

A. E. Wehrle, E. Pian, C. M. Urry, L. Maraschi, G. Ghisellini, R. C. Hartman, G. M. Madejski, F. Makino, A. P. Marscher, I. M. McHardy, J. R. Webb, G. S. Aldering, M. F. Aller, H. D. Aller, D. E. Backman, T. J. Balonek, P. Boltwood, J. Bonnell, J. Caplinger, A. Celotti, W. Collmar, J. Dalton, A. Drucker, R. Falomo, C. E. Fichtel, W. Freudling, W. K. Gear, N. Gonzalez-Perez, P. Hall, H. Inoue, W. N. Johnson, M. R. Kidger, R. I. Kollgaard, Y. Kondo, J. Kurfess, A. J. Lawson, B. McCollum, K. McNaron-Brown, D. Nair, S. Penton, J. E. Pesce, M. Pohl, C. M. Raiteri, M. Renda, E. I. Robson, R. M. Sambruna, A. F. Schirmer, C. Shrader, M. Sikora, A. Sillanpää, P. S. Smith, J. A. Stevens, J. Stocke, L. O. Takalo, H. Teräsranta, D. J. Thompson, R. Thompson, M. Tornikoski, G. Tosti, P. Turcotte, A. Treves, S. C. Unwin, E. Valtaoja, M. Villata, S. J. Wagner, W. Xu, and A. C. Zook

Radio to γ -Ray Observations of 3C 454. 3: 1993-1995

M. F. Aller, A. P. Marscher, R. C. Hartman, H. D. Aller, M. C. Aller, T. J. Balonek, M. C. Begelman, M. Chiaberge, S. D. Clements, W. Collmar, G. De Francesco, W. K. Gear, M. Georganopoulos, G. Ghisellini, I. S.

Glass, J. N. González-Pérez, P. Heinämäki, M. Herter, E. J. Hooper, P. A. Hughes, W. N. Johnson, S. Katajainen, M. R. Kidger, A. Kraus, L. Lanteri, G. F. Lawrence, G. G. Lichti, Y. C. Lin, G. M. Madejski, K. McNaron-Brown, E. M. Moore, R. Mukherjee, A. D. Nair, K. Nilsson, A. Peila, D. B. Pierkowski, M. Pohl, T. Pursimo, C. M. Raiteri, W. Reich, E. I. Robson, A. Sillanpää, M. Sikora, A. G. Smith, H. Steppe, J. Stevens, L. O. Takalo, H. Teräsranta, M. Tornikoski, E. Valtaoja, C. von Montigny, M. Villata, S. Wagner, R. Wichmann, and A. Witzel

Multi-wavelength Radio Monitoring of EGRET Sources and Candidates

P. G. Edwards, J. E. J. Lovell, R. C. Hartman, M. Tornikoski, M. Lainela, P. M. McCulloch, B. M. Gaensler, and R. W. Hunstead

VLBI Observations of Southern Hemisphere Gamma-Ray Loud and Quiet AGN

S. J. Tingay, D. W. Murphy, P. G. Edwards, P. G., M. E. Costa, P. M. McCulloch, J. E. J. Lovell, D. L. Jauncey, J. E. Reynolds, A. K. Tzioumis, R. A. Preston, D. L. Meier, D. L. Jones, and G. D. Nicolson

VLBA Monitoring of Three Gamma-Ray Bright Blazars: AO 0235+164, 1633+382 (4C 38. 41) & 2230+114 (CTA 102)

W. Xu, A. E. Wehrle, and A. P. Marscher

Coordinated Millimeter-wave Observations of Bright, Variable Gamma-ray Blazars with the Haystack Radio Telescope

J. Gregory Stacy, W. Thomas Vestrand, and Robert B. Phillips

The Burst Activity of Millimeter Wavelengths Compared to Gamma-Activity of AGN

Harri Teräsranta

Relationships between radio and gamma-ray properties in active galactic nuclei

Anne Lähteenmäki, Harri Teräsranta, Kaj Wiik, and Esko Valtaoja

Fast Variations of Gamma-Ray Emission in Blazars

Stefan J. Wagner, Corinna von Montigny, and Martin Herter

**A $z = 2.1$ quasar as the optical counterpart of the MeV source
GRO J1753+57**

A. Carramiñana, V. Chavushyan, and J. Guichard

ASCA Observations of Blazars and Multiband Analysis

Tadayuki Takahashi, Hidetoshi Kubo, Greg Madejski, Makoto Tashiro,
and Fumiyoshi Makino

Spectral modelling of gamma-ray blazars

M. Böttcher, H. Mause, and R. Schlickeiser

Modelling the rapid variability of blazar emission

J. G. Kirk and A. Mastichiadis

OVERVIEWS, SURVEYS, AND MISCELLANEOUS

BeppoSAX Overview

Luigi Piro, on behalf of the BeppoSAX team

**Initial Results from the High Energy Experiment PDS aboard
BeppoSAX**

F. Frontera, D. Dal Fiume, E. Costa, M. Feroci, M. Orlandini, L. Nicastro,
E. Palazzi, G. Zavattini, and P. Giommi

**The CFA Batse Image Search (CBIS) as used for a Galactic
plane survey**

D. Barret, J. E. Grindlay, P. F. Bloser, G. P. Monnelly, B. A. Harmon,
C. R. Robinson, and S. N. Zhang

**TeV Gamma Ray Emission from Southern Sky Objects and
CANGAROO Project**

T. Kifune, S. A. Dazeley, P. G. Edwards, T. Hara, Y. Hayami, S. Kamei,
R. Kita, T. Konishi, A. Masaike, Y. Matsubara, Y. Matsuoka, Y. Mizumoto,
M. Mori, H. Muraiishi, Y. Muraki, T. Naito, K. Nishijima, S. Ogio,
J. R. Patterson, M. D. Roberts, G. P. Rowell, T. Sako, K. Saku-

razawa, R. Susukita, A. Suzuki, R. Suzuki, T. Tamura, T. Tanimori, G. J. Thornton, S. Yanagita, T. Yoshida, and T. Yoshikoshi

Saturated Compton Scattering Models for the Soft Gamma-Ray Repeater Bursts

I. A. Smith, E. P. Liang, A. Crider, and D. Lin

The GRB 970111 Error Box 19-hours after the High Energy Event

Alberto J. Castro-Tirado, Javier Gorosabel, Nicola Masetti, Corrado Bartolini, Adriano Guarnieri, Adalberto Piccioni, Jochen Heidt, Tomas Seitz, Edouard Thommes, Christian Wolf, Enrico Costa, Marco Feroci, Filippo Frontera, Danielle Dal Fiume, Luciano Nicastro, Eliana Palazzi, and Niels Lund

The Duration-Photon Energy Relation In Gamma-Ray Bursts and Its Interpretations

Demosthenes Kazanas, Lev G. Titarchuk, and Xin-Min Hua

FUTURE MISSIONS AND INSTRUMENTATION

IBIS: The Imaging Gamma-Ray Telescope on Board INTEGRAL

Pietro Ubertini, on behalf of the IBIS Consortium

SPI: A High Resolution Imaging Spectrometer for INTEGRAL

B. J. Teegarden, J. Naya, H. Seifert , S. Sturmer, G. Vedrenne, P. Mandrou, P. von Ballmoos, J. P. Roques, P. Jean, F. Albernhe, V. Borrel, V. Schonfelder, G. G. Lichti, R. Diehl, R. Georgii, P. Durouchoux, B. Cordier, N. Diallo, J. Matteson, R. Lin, F. Sanchez, P. Caraveo, P. Leleux, G. K. Skinner, and P. Connell

The spectral line imaging capabilities of the SPI germanium spectrometer on INTEGRAL

G. K. Skinner, P. H. Connell, J. Naya, H. Seifert, S. Sturmer, B. J. Teegarden, and A. W. Strong

The IBIS view of the galactic centre: INTEGRAL's imager observations simulations

P. Goldoni, A. Goldwurm, P. Laurent, and F. Lebrun

Can the INTEGRAL-Spectrometer SPI detect γ -ray lines from local galaxies?

R. Georgii, R. Diehl, G. G. Lichti, and V. Schönfelder

Contribution of passive materials to the background lines of the spectrometer of *INTEGRAL* (SPI)

N. Diallo, B. Cordier, M. Collin, and F. Albernehe

MGEANT—A Generic Multi-Purpose Monte-Carlo Simulation Package for Gamma-Ray Experiments

Helmut Seifert, Juan E. Naya, Steven J. Sturner, and Bonnard J. Teegarden

A Small Scan Angle-Dependent Background Systematic in Non-Standard OSSE Observations

J. D. Kurfess, K. McNaron-Brown, W. R. Purcell, R. L. Kinzer, and W. N Johnson

A time dependent Model for the activation of COMPTEL

Martin Varendorff, Uwe Oberlack, Georg Weidenspointner, Roland Diehl, Rob van Dijk, Mark McConnell, and James Ryan

Statistical analysis of COMPTEL maximum likelihood-ratio distributions: evidence for a signal from previously undetected AGN

O. R. Williams, K. Bennett, R. Much, V. Schönfelder, J. J. Blom, and J. Ryan

Improved COMPTEL 10-30 MeV Event Selections for Point Sources from Inflight Data

W. Collmar, U. Wessolowski, V. Schönfelder, G. Weidenspointner, C. Kappadath, M. McConnell, and K. Bennett

Earth Occultation Technique with EGRET Calorimeter Data above 1 MeV

Brenda L. Dingus, D. L. Bertsch and E. J. Schneid

Maximum-Entropy analysis of EGRET data

M. Pohl for the EGRET collaboration, and A. W. Strong

Non-parametric estimates of high energy gamma-ray source distributions

D. D. Dixon, E. D. Kolaczyk, J. Samimi, and M. A. Saunders

Development of Gas Micro-Structure Detectors for Gamma-Ray Astronomy

S. D. Hunter, S. V. Belolipetskiy, D. L. Bertsch, J. R. Catelli, H. Crawford, W. M. Daniels, P. Deines-Jones, J. A. Esposito, H. Fenker, B. Gossan, R. C. Hartman, J. B. Hutchins, J. F. Krizmanic, V. Lindenstruth, M. D. Martin, J. W. Mitchell, W. K. Pitts, J. H. Simrall, P. Sreekumar, R. E. Streitmatter, D. J. Thompson, G. Visser, and K. M. Walsh

The Design of a 17 m Air Cerenkov Telescope for VHE Gamma Ray Astronomy above 20 GeV

E. Lorenz for the MAGIC Telescope Design Group

Monte Carlo Simulations of the Timing Structure of Cherenkov Wavefronts of Sub-100 GeV Gamma Ray Air Showers

D. R. Peaper, C. L. Gottbrath, M. P. Kertzman, and G. H. Sembroski

The University of Durham Mark 6 VHE Gamma Ray Telescope

P. M. Chadwick, M. R. Dickinson, N. A. Dipper, J. Holder, T. R. Kendall, T. J. L. McComb, K. J. Orford, S. M. Rayner, I. D. Roberts, S. E. Shaw, and K. E. Turver

Solar Tower Atmospheric Cherenkov Effect Experiment (STACEE) for Ground Based Gamma Ray Astronomy

D. Bhattacharya, M. C. Chantell, P. Coppi, C. E. Covault, M. Drago-

van, D. T. Gregorich, D. S. Hanna, R. Mukherjee, R. A. Ong, S. Oser,
K. Ragan, O. T. Tümer, and D. A. Williams

On the Potential of the HEGRA IACT Array

Felix A. Aharonian (HEGRA collaboration)

A Site for Čerenkov Astronomy in the White Mountains of California

John R. Mattox and Steven P. Ahlen

Simulation of HEAO 3 Background

B. L. Graham, B. F. Phlips, R. A. Kroeger, and J. D. Kurfess

Activation of Gamma Detectors by 1.2 GeV Protons.

J. L. Ferrero, C. Roldán, I. Arocás, R. Blázquez, B. Cordier, J. P. Leray,
F. Albernhe, and V. Borrel